

We Claim:

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1. A DNA plasmid comprising a T-DNA comprising an *Agrobacterium* Ti plasmid first border region linked to at least one transgene linked to an *Agrobacterium* Ti plasmid second border region, and located in the DNA plasmid outside of the T-DNA is a plant expression cassette comprising a plant cell non-lethal negative selectable marker gene linked to a vector backbone DNA.

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2. The DNA plasmid of claim 1, wherein said plant expression cassette comprises a promoter that functions in plant cells operably linked to a plant cell non-lethal negative selectable maker gene.

3. The DNA plasmid of claim 2, wherein said promoter is a constitutive promoter.

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4. The DNA plasmid of claim 2, wherein said promoter expresses said linked non-lethal negative selectable maker gene product in tissue culture during plant regeneration.

5. The DNA plasmid of claim 1, wherein said plant cell non-lethal negative selectable marker gene comprises a plant hormone biosynthetic pathway gene.

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6. The DNA plasmid of claim 1, wherein said plant cell non-lethal negative selectable marker gene comprises a plant hormone degradative gene.

7. The DNA plasmid of claim 1, wherein said plant cell non-lethal negative selectable marker gene comprises a plant hormone biosynthetic pathway substrate-diverting gene.

8. The DNA plasmid of claim 1, wherein said plant cell non-lethal negative selectable marker gene comprises a plant hormone signaling gene.

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9. The DNA plasmid of claim 1, wherein said plant cell non-lethal negative selectable marker gene comprises a metabolic interference gene.

10. The DNA plasmid of claim 1, wherein said transgene is a plant positive selectable marker gene selected from the group consisting of antibiotic resistance and herbicide resistance.

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11. The DNA plasmid of claim 1, wherein said transgene comprises a transgene of agronomic interest.

12. The DNA plasmid of claim 5, wherein said plant hormone biosynthetic pathway gene is selected from the group consisting of gibberellic acid pathway genes, cytokinin pathway genes, auxin pathway gene, ethylene pathway genes and abscisic acid pathway genes.

5 13. The DNA plasmid of claim 5, wherein said plant hormone biosynthetic pathway gene or portion thereof expresses an antisense RNA complementary to an endogenous plant cell RNA, wherein said antisense RNA is designed for post transcriptional gene suppression.

10 14. The DNA plasmid of claim 6, wherein said plant hormone degradative gene is selected from the group consisting of gibberellic acid degradative genes, cytokinin degradative genes, auxin degradative genes, ethylene degradative genes and abscisic acid degradative genes.

15 15. The DNA plasmid of claim 7, wherein said plant hormone biosynthetic pathway substrate-diverting gene is selected from the group consisting of gibberellic acid pathway substrate-diverting genes, cytokinin pathway substrate-diverting genes, auxin pathway substrate-diverting gene, ethylene pathway substrate-diverting genes and abscisic acid pathway substrate-diverting genes.

20 16. The DNA plasmid of claim 8, wherein said plant hormone signaling gene is selected from the group consisting of gibberellic acid pathway signaling genes, cytokinin pathway signaling genes, auxin pathway signaling gene, ethylene pathway signaling genes and abscisic acid pathway signaling genes.

25 17. The DNA plasmid of claim 9, wherein said metabolic interference gene encodes for an enzyme selected from the group consisting of biosynthetic pathway enzymes, enzymes that divert substrates from a biosynthetic pathway, enzymes that degrade or inactivate substrates of a biosynthetic pathway.

18. The DNA plasmid of claim 17, wherein said enzyme is selected from the group consisting of levansucrase, invertase and trehalose synthase.

30 19. The DNA plasmid of claim 9, wherein said metabolic interference gene expresses an antisense RNA complementary to an endogenous plant cell RNA, wherein said antisense RNA is designed for post transcriptional gene suppression.

20. A method for enhancing the selection of transgenic plants that do not contain vector backbone DNA comprising the steps of: a) transforming a plurality of plant cells with the DNA plasmid of claim 1; and b) selecting said plant cells on a positive selection compound; and c) regenerating said selected plant cells into plants.
- 5 21. A plant produced by the method of claim 20.
22. A method for reducing the copy number of a transgene in a plant cell comprising the steps of: a) transforming a plurality of plant cells with the DNA plasmid of claim 1; and b) selecting said transformed plant cells on a positive selection compound; and c) regenerating said selected plant cells into plants.
- 10 23. A transgenic plant produced by the method of claim 22.